

Taking Stock: The State of the Business Recovery

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Thirty-five years ago, in 1967, economists met at a conference to discuss the question, “Is the Business Cycle Obsolete?” (The conference proceedings were published in a book with the same title. Martin Bronfenbrenner, ed., Wiley Interscience, 1969.) The answer to the question from those proceedings was a tentative “maybe,” with some participants believing that the cycle was obsolete and others willing at most to argue that severe downturns were a thing of the past. Over the years since that discussion, history has proven that the U.S. economy is not recession-proof: the U.S. economy experienced six recessions—in 1970, 1973-75, 1980, 1981-82, 1990-91, and most recently in 2001. Moreover, the 1981-82 recession was pretty severe, with the unemployment rate rising to just under 11 percent. Although the business cycle is clearly still a fact of economic life, expansion, not recession, is the normal state of our economy.

In assessing the health of an economy, it is important to differentiate between short-run fluctuations and long-run trends. A recession is like a cold, perhaps mild, perhaps miserable, but it passes in due time. The most important issue for any economy is its long-run health, not its inevitable temporary setbacks.

I will first take stock of the underlying trends in our economy. My conclusion is that the basic health of our economy in recent years, and most probably for years to come, is substantially better than it used to be. Inflation is low and steady and expected to remain so. Productivity growth is up, and expected to remain so. Those are two key features of our economic situation over the longer run.

I will then take stock of the short-run situation—our recovery from the 2001 recession. While we all want a more rapid recovery than we have observed in recent months, I believe that the evidence supports the view that recovery is underway and is most likely to continue. Finally, I’ll walk you through three scenarios of where the economy might go from here and possible implications of these alternatives for monetary policy.

Before proceeding, I want to emphasize that the views I express here are mine and do not necessarily reflect official positions of the Federal Reserve System. I thank my colleagues at the Federal Reserve Bank of St. Louis, especially Bob Rasche and Kevin Kliesen, for their comments, but I retain full responsibility for errors.

LONG-TERM PROGNOSIS

In focusing on the near-term economic outlook, we too often fail to adequately consider those forces that ultimately determine our future living standards. Since expansion of output and employment is the normal state of the U.S. economy, the determinants of how rich or poor future generations will be should always be in the forefront of our thinking. Sustained lower inflation, and the lower inflation expectations that go with that achievement, and faster productivity growth have become so accepted as permanent features of the U.S. economy that we are in danger of taking them for granted.

If the last 25 years have taught us anything, it is that our economy does much better when inflation is low and stable and, equally important, when firms and households expect it to remain

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that way. Clearly, this development did not occur by accident. The current period of low and stable inflation occurred because the Federal Reserve successfully implemented a strategy to achieve and maintain that outcome. The success of this policy bolstered the Fed's credibility with Wall Street and Main Street, thereby bringing long-run inflation expectations down to relatively low levels and reducing the responsiveness of those expectations to short-run fluctuations in our price indexes.

Some of you may have vivid memories of what our situation was like when price level instability was the norm. Inflation rose after 1965 and reached a level from 1979 to 1981 that averaged nearly 11¾ percent a year as measured by the consumer price index. Given the 1 to 3 percent rates of inflation that had been the norm during much of the 1950s and early 1960s, the inflation of the 1970s was a disturbing development. The substantial erosion in the purchasing power of the U.S. dollar from 1965 to 1981 caused great pain, culminating in the deepest recession since the Great Depression. Since inflation came down, we've experienced only two recessions, both mild.

Not surprisingly, the effects of rising inflation caused firms and households to reassess their view of policymakers' commitment to price stability. Inflation expectations rose, starting in about 1968. Doubts about monetary policy gradually increased, and by the late 1970s the Fed had far less credibility than it needed to conduct a successful monetary policy. The deep recession of 1981-82 was part of the cost of that lost credibility.

By 1980, the Blue Chip Survey of Forecasters showed expected annual average inflation over the following 10 years in the range of 7 to 8 percent. Ten years later, the policies of Fed Chairmen Paul Volcker and Alan Greenspan had produced a sharp drop in inflation expectations: In 1991, the Philadelphia Fed's Livingston Survey, the Blue Chip Survey, and the Survey of Professional Forecasters all showed that forecasters expected CPI inflation to average about 4 percent over the 10-year forecasting horizon. That 4 percent expected rate for the 1990s was close to actual experience in the 1980s.

The Fed's commitment to price stability was cemented further in the 1990s. Inflation gradually fell, and by the late 1990s various measures of expected long-term inflation settled in the neighborhood of 2 to 2½ percent. We have made a lot of progress on the inflation front. This climate of price stability provides a substantial base for the future growth of our economy and it also permits the Federal Reserve to react much more vigorously to short-run developments than would otherwise be the case.

In the long run, a nation's standard of living, often measured as the growth of real GDP per capita, is a function of average labor productivity growth. Total GDP growth depends on both labor force and productivity growth. Labor force growth is a function of population growth and immigration rates and is relatively constant year by year. Uncertainty over our long-run prospects for GDP growth is largely a function of uncertainty over productivity growth. I'll concentrate on the simplest productivity measure—labor productivity—which is output per hour of labor input.

Between 1973 and 1994, the growth of labor productivity averaged 1.4 percent per year. Since 1995, labor productivity growth has been about 1 percentage point higher. A simple way to see the implication of this increase in labor productivity growth is that, at the old rate, output per worker doubles in 50 years, whereas at the new higher rate output per worker doubles in 29 years. Clearly, the long-run benefits of small increases in annual productivity growth are substantial when compounded over long periods. Given that we have an aging population, we have a great need for this higher productivity growth to provide the output required to support both the working population and the increasingly large retired population.

Economists who have looked at the sources of productivity acceleration point mostly to the tremendous increases in the stock of business capital equipment and software during the last several years. But the key is not just more capital per worker. New technology requires changed business processes to be fully effective. Think of the ubiquitous nature of point-of-sale scanners,

which have revolutionized inventory management, computer-assisted design software and computer-assisted machine cutting tools, cell phones, copiers, the Internet, and a panoply of other technological innovations. All of these have changed the way we do business. New technology also interacts with government policies and requires that they change over time. Two important areas on this front are reforms in regulatory policy and reduced restrictions on international trade to take advantage of efficiencies from serving and drawing on world markets.

Recent data revisions lowered the estimate of the average growth rate of labor productivity over the past three years by about $\frac{1}{4}$ of a percentage point. Nevertheless productivity growth remained robust by historical standards during the 2001 economic recession, giving credibility to the forecast that the productivity slowdown of 1973-94 is indeed truly over.

SHORT-TERM PROGNOSIS

There has been a marked downshift in the growth of U.S. economic activity since late last year. Output growth has been modest, and employment growth almost nil. These developments are quite naturally a matter of concern.

Most of the press attention is on the growth of real GDP, but focusing on final sales yields a better understanding of the recovery process. GDP is the sum of final sales and inventory investment, but the inventory cycle can distort the short-run picture. Early in a recovery period, real GDP growth is quite typically boosted by an inventory build-up, or the cessation of an inventory correction, and that was certainly true of the current recovery. Final sales provides a cleaner measure of the underlying strength of aggregate demand.

After rising at a fairly robust 4.2 percent annual rate in the fourth quarter of 2001, the growth of real final sales slowed to a 2.4 percent annual rate during the first quarter of 2002. Then, in the second quarter, the pace of final sales ground to a halt—and even contracted a bit—falling at a 0.1 percent rate. We should not get

hung up on these precise numbers, because the currently available second quarter data come from the advance estimate of GDP and its components. These estimates are subject to revision. But other information also supports the basic picture of an economy that is growing only slowly, and that is the main point.

Clearly, at this stage of the recovery, a stalling out of growth of real final sales is cause for concern; in a typical recovery period, the economy is growing much faster at this stage. Part of the explanation is that the recession was unusually mild, which leads to the expectation that the recovery will also be more mild than usual. Another part of the explanation is that this recession was concentrated in the area of business fixed investment; household spending on housing and consumer durables held up far better than usual in a recession period.

Although business fixed investment tends to be highly cyclical, the drop in business capital spending in 2001 was much larger than usual—probably because the amount of investment that took place late in the expansion was excessive—at least with the benefit of hindsight—particularly in certain sectors such as telecom. Fortunately, real investment in equipment and software increased for the first time in nearly two years during the second quarter of this year; however, nonresidential construction spending remains very weak.

The second quarter is now history, and we are into the third quarter. At this stage perceptions of the economy's strength going forward are formed both by forecasts and by high frequency data that are, however, often subject to large revisions. As the data on income, production, and expenditures come in, they are gauged relative to our expectations and then the forecasts get revised accordingly. This process is evident from a comparison of the July and August Blue Chip Consensus forecast for real GDP growth over the second half of the 2002. In July, the Consensus was roughly 3 percent growth for the third quarter and $3\frac{3}{4}$ percent for the fourth quarter. In August, these projections were marked down to about $2\frac{1}{2}$ and 3 percent growth, respectively.

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The financial press is filled with stories about the possibility that the economy might slip back into recession. From an historical standpoint, the likelihood of a double-dip is remote because there has only been one such event in the post-World War II era. The short 1980 recession was followed by a four-quarter recovery and then by the deep 1981-82 recession. However, the macroeconomic climate that spawned that double-dip—high and rising inflation, poor public policies, and a major oil price shock—is notably absent this time around. Hence, barring an unpredictable calamity, I think the probability of a double-dip recession at the present time is low. Most business economists share this view, according to the recent *Economic Policy Survey* conducted by the National Association for Business Economics.

What makes a double-dip recession unlikely? I've already talked about the favorable inflation environment. Expectations of low and stable inflation can only be described as "entrenched," which makes it much easier than would otherwise be the case for businesses to plan for the future. The banking system is well capitalized, unlike the situation after the 1990-91 recession, which means that credit is readily available to credit-worthy firms. Monetary and fiscal policy are both contributing to recovery. Although the level and volatility of the equity market has reduced the rate of initial public offerings to a low level, which makes the financing of new enterprises more difficult, the financing situation faced by new enterprises today is typical of early recovery periods.

Some observers have expressed the worry that the United States may face the so-called "Japan problem." That is, the existing low rate of inflation may give way to deflation—a persistent decline in the general price level, leading to persistent stagnation of economic activity. Deflation can be a serious macroeconomic problem, as U.S. experience in the 1930s and Japanese experience from the early 1990s to the present day illustrate. However, unlike our situation in the 1930s and Japan in recent years, U.S. money growth has remained robust and even increased during the recent economic slowdown. I am unaware of any

deflation experience that has occurred absent a significant and persistent reduction in monetary growth rates.

Moreover, the U.S. inflation situation today is decidedly mixed, with different sectors experiencing different price trends. Although the prices of many manufactured goods are falling, prices of medical care, education, and many other services are rising. As a former university professor, I've often joked that I'll believe deflation is upon us when leading universities start cutting tuition. Housing prices are rising to such an extent that some are talking of a housing "bubble." In Japan, real estate prices declined along with equity prices. For these and other reasons, I do not see deflation as a major risk to the economic outlook for the United States at the present time.

THREE ECONOMIC SCENARIOS

One possible scenario for the path of the economy over the next few years is that recovery will proceed about as expected in the consensus forecast. That outlook has GDP growing at a rate of about 2½ percent over the second half of this year. Growth gradually picks up next year and settles at roughly 3½ percent toward the end of next year. That rate of growth continues over the remainder of the forecasting horizon of three or four years. That is also the average rate of growth expected over the longer run.

The long-run growth rate is determined by the economy's fundamental capacity to produce. Labor force demographics, determined by the U.S. birth rate, immigration, and retirements suggest that the number of people employed will grow by about 1 percent per year. Add to that source of growth an estimate of 2½ percent productivity growth yields GDP growth of 3½ percent per year. Of course, both of these projections are subject to error, especially the rate of productivity growth.

This baseline scenario is widely accepted in the markets. However, as always, some forecasters expect faster and some slower growth than the baseline. Current interest rates also reflect this baseline expectation. From yields on Treasury

securities of varying maturity, we can calculate the market's expectation of future short-term interest rates. For example, comparison of the rate on a 3-year bond with that on a 4-year bond permits us to calculate an implicit expected 1-year interest rate three years in the future—the rate on a 1-year bond to be issued three years from now. What this calculation shows is that the market expects the 1-year bond rate to rise steadily from its current level of about 2 percent. Two years from now the market expects the 1-year rate to be 3.8 percent; four years from now, 5.2 percent; eight years from now, 6.4 percent.

I could refine these interest rate estimates, but they are good enough for current purposes. What they show is that the market expects a typical recovery scenario, with rates rising as GDP growth picks up and as the margin of unused labor and capital resources declines. Over time, as business employs currently excess production capacity and begins to increase capital spending, credit demands will rise. In the normal course of events, we expect corporate profits to rise, which will finance some but not all of the increased capital spending. For that reason, businesses will be raising more funds in the capital markets, which is part of the explanation of why interest rates are expected to rise.

All of these characteristics of the baseline scenario are perfectly standard stuff. But also perfectly standard is that the actual outcome may well differ from today's best guess. The baseline scenario evolves as data arrive, changing expectations about the future.

Recent experience illustrates this process very nicely. Consider how the Blue Chip Consensus forecast for 2002 has changed over time. The Blue Chip Consensus forecast refers to the annual average GDP; thus, the numbers I am about to discuss refer to the annual average GDP for 2002 compared with the annual average for 2001. The Blue Chip monthly releases, dated the 10th of every month, are based on a survey taken at the beginning of the month. That means that forecasters are basing their projections on data available through the first day or two of the month. In January 2001, the consensus was that GDP growth

for 2002 would be 3.4 percent. The consensus fell to 2.7 percent in September, just before the 9/11 attacks. The October consensus was 1.5 percent, and the January 2002 consensus for 2002 growth was 1.0 percent.

Incoming data led forecasters to revise their views about this year. The Blue Chip Consensus forecast gradually rose, reaching 2.8 percent in May. Then, the flow of data became less promising; the current Blue Chip Consensus forecast, released earlier this month, was 2.3 percent.

As information arrives, interest rates reflect the changing economic outlook. Consider how the Treasury 10-year bond rate has moved since the Fed began to reduce its federal funds rate target on January 3, 2001. Just before that first policy action, the 10-year rate was about 5.0 percent. Following the policy action, the market became more confident that the economy would escape recession, and the 10-year rate rose, to almost 5.3 percent at the end of January. Over subsequent months, the 10-year rate fluctuated generally in a range from $4\frac{3}{4}$ percent to $5\frac{1}{4}$ percent. But there were periods of stronger data and greater optimism about the future, as in May 2001 when the rate approached $5\frac{1}{2}$ percent. The outlook became clearly more pessimistic and uncertain with the 9/11 tragedy, and the bond rate fell to 4.3 percent in early November. But incoming data were stronger than had been expected; the bond rate rose to 5 percent in December and on up to $5\frac{1}{4}$ percent by May of this year. The consensus forecast was also being revised up during this period. Since May, incoming data have been weaker than expected; the 10-year bond rate is now down to about $4\frac{1}{4}$ percent, and the Blue Chip Consensus forecast has been revised down for both this year and next.

I've outlined what the baseline forecast looks like at this point, but clearly we have to look also at the possibility that the actual outcome may be stronger or weaker than the baseline. Let's look at the implications of two additional scenarios, one stronger and one weaker than the baseline. Remember that the baseline is the one prevailing today, but tomorrow it may be different. Forecasters revise the baseline almost continuously as incoming information arrives.

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To keep this analysis of alternative scenarios from becoming unduly complicated, let's assume that the baseline is correct as to a long-run rate of GDP growth of about 3½ percent, but wrong about how fast we get to that long-run growth rate. Suppose first that the economy approaches the long-run growth rate more quickly than is projected in current forecasts. In this case, it is likely that over the next two years or so, relative to the baseline projection, business investment demand will be stronger, equity markets will recover more quickly, and unemployment will fall more quickly. As a consequence, short-term interest rates will also rise more quickly than current market expectations, and long-term rates will rise somewhat as well.

The Federal Reserve, of course, will have a role here. The Fed will want to pursue a policy to keep inflation low and stable. That policy will require a higher target federal funds rate, the interest rate the Fed influences directly through its open market operations. This is the typical pattern of a healthy, non-inflationary recovery.

Another possible scenario is that the economy might experience a longer period of sub-par growth than in the baseline projection. In this latter case, short-term interest rates will remain low for a longer period than in the baseline case. As the market digests incoming news indicating that the economy is growing more slowly than expected, it will lower its expectations of future short-term rates, which will bring down longer-term rates. As an example that I hope we will not observe—because I certainly want to see the economy recovering more rather than less quickly—if the picture changes enough that the market expects that the 1-year rate will remain at about 2 percent for the next five years, then the 5-year bond rate will fall from its current level of about 3.3 percent to about 2 percent. Similarly, the 10-year and 30-year bond rates will fall from their current levels of about 4.3 and 5.1 percent, respectively, to lower levels.

These changes in longer-term rates in the subpar growth scenario do not assume any Federal Reserve action to change the target federal funds rate. In this scenario, the market will

bring down longer-term rates without Fed action because the market will expect that the Fed will retain its current low federal funds rate target of 1.75 percent for a longer period than expected in the baseline scenario.

Keep in mind that this scenario assumes economic growth below the baseline. Interest rates decline because of that assumed outcome, and so do not prevent it. At the same time, the decline in rates does serve to limit the extent of economic weakness. Clearly, declining long rates will tend to support housing, business fixed investment, and household spending on consumers durables such as cars and furniture. In time, the natural forces of growth will reassert themselves and the economy will grow at its trend rate determined by labor force and productivity growth. We will be disappointed that we didn't reach trend growth sooner, but there is no reason to expect that the U.S. economy will fall into a persistent state of stagnation.

This analysis suggests that there is a sense in which the monetary policy situation today is asymmetric—that sometime in the future there is a higher likelihood of rising than of falling short-term rates. That seems to me to be true, but only because the Fed brought short rates down so quickly and so far last year that the short end of the yield curve settled considerably below the long end. And, remember, the level of long rates today reflects market expectations that the economy will recover along a baseline we've already discussed, a recovery fueled by an accommodative monetary policy and the natural dynamics of the business cycle.

I certainly do not want to leave the impression that my position is that there are no circumstances under which I would argue that the Fed should cut the target federal funds rate. The slow-growth scenario could be so slow, or could threaten to become an outright decline in employment and output, that it would make sense for the Fed to cut the funds rate from its current level. Or, the United States could suffer some unforeseen outside shock of the sort all of us are aware is possible but hate to speculate about.

Given success in achieving low and steady inflation, Fed policy will be driven by events that determine what interest rate policy will be required to support growth in the context of maintaining price stability. We may experience events that shout for a policy response, the way 9/11 did. More likely, we'll have an accumulation of evidence that will require judgment to sort out, leaving ample room for differences of opinion as to the appropriate size and timing of policy responses.

CONCLUSION

That we are in our current policy position is a luxury the Fed has earned by investing in price stability. Because inflation expectations are so firmly held, the economy is not super-sensitive to the timing of monetary policy actions. If the Fed waits when it might better have acted, the economy will not run off the rails because the FOMC will in time act and act vigorously enough to make up for lost time. Conversely, if the Fed raises the target federal funds rate too early, when

in retrospect it should have waited, the economy will either "grow into" the target set by the FOMC or the FOMC will be able to reverse course without doing significant damage.

In short, the economic recovery does not depend on the FOMC timing its policy adjustments exactly right. That is an unreasonable standard to apply to judging the FOMC and fortunately not at all necessary. As I have repeatedly emphasized, one of the great benefits of achieving low and stable inflation is that this environment makes the economy less sensitive to the exact timing of monetary policy adjustments, because market participants have entrenched expectations that the Fed will do what is necessary to maintain this low-inflation environment for years to come.

I firmly believe that the current macroeconomic situation is more stable in its fundamentals than it has been over the whole of my professional life, which goes back to the early 1960s. Neither I nor anyone else can forecast the short-term outlook with any great precision, but I am convinced that those who bet against the long-run health of the U.S. economy are making a big mistake.